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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/595,893	06/20/2000	Jean-Rene' Lequepeys	034299-259	5767

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EXAMINER

GHEBRETINSAE, TEMESGHEN

ART UNIT PAPER NUMBER

2611

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/595,893

Applicant(s)

LEQUEPEYS ET AL.

Examiner

Temesghen Ghebretinsae

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. It would be of great assistance to the Office if all incoming papers pertaining to a filed application carried the following items:

1. Application number (checked for accuracy, including series code and serial no.).
2. Group art unit number (copied from most recent Office communication).
3. Filing date.
4. Name of the examiner who prepared the most recent Office action.
5. Title of invention.
6. Confirmation number (See MPEP § 503).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1,8,12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed (see page 10, lines 4-11) does not have support for **a transmitter comprising** means for processing the N blocks in parallel in N M-ary orthogonal keying modulation channels each modulation using group of spread codes, and each channel **emitting** a signal (S1, S2, SN), **and a rank of the signals according to energy or amplitude, or combination thereof** as claimed in claim 1 and 8; and **the N data blocks**

Art Unit: 2611

corresponding to signals previously ranked according to energy or amplitude, or combination thereof as claimed in claim 12.

4. The receiver in fig.2 comprises a circuit (13) capable of determining, in each of the N groups of signals, which signal has the greatest energy (or amplitude). The circuit (13) has N outputs S1, S2, SN each emitting the rank of the signal with greatest energy. (See page 10, lines 4-1)

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mochizuki (6,320,842) in view of Nee (US2002/0186651).

7. Consider claims 1-4,8-15 as claimed. Mochizuki discloses data transmission process comprising at the transmission; means for divide in data into n data blocks (111); means for processing the n blocks in parallel in N $\text{Pi}/2$ DBPSK and DPBSK modulation channels (112-1-112-4; 113-A-113-D), each modulating using a group of spread codes (PN1-PNN); means for combining (117-1,117-2) the output from the N parallel modulation and means for transmitting (118) the signal output from the means for combining (see figs. 9 and 12). At the receiver; means for processing the received signal in parallel in N DBPSK and $\text{Pi}/2$ DBPSK demodulation channel; and means for grouping the data together in series and reproduce the transmitted data (figs. 3,5,7,10).

Mochizuki differs from the claimed invention in that the modulation scheme is not M-ary orthogonal keying modulation scheme. However, Nee discloses means for divide in the data to be transmitted into N blocks (12,14); means for processing the blocks in parallel in N M-ary orthogonal keying modulation channel (16,18) and means for transmitting. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the M-ary orthogonal keying modulation /demodulation scheme of Nee in the system of Mochizuki since the system of Mochizuki is not limited to the specific modulation/demodulation schemes.

As for claims 5-7,16-17, the number of spread codes (PN-1, PN-N) is the same in each group and the spread codes used are all different from one group to another (PN1-PN-N) and certain spread codes are used in several groups. (Code generator 59,14,116)

As for claims 18-19, at the reception the signal received is processed in group of filters (55-1-1,55-m-2; fig.2-3) distributed in N groups of filters.

Response to Arguments

8. Applicant's arguments filed 8/7/06 have been fully considered but they are not persuasive. Applicant argues that the prior art (Mochizuki or Nee) do not disclose a **rank of signals according to energy or amplitude or combination thereof** as claimed in claims 1, 8; and **the N data blocks corresponding to signals previously ranked according to energy or amplitude, or combination thereof** as claimed in claim 12. However, the claimed particular limitations do not have support in the specification as originally filed being part of the transmitter. (See page 10, lines 4-11

and above rejection) The particular limitation is located at the receiver not at the transmitter (see fig.2 circuit 13). Furthermore, The means for estimating the energy or amplitude and the means for emitting the rank of the signal with the greatest energy are not claimed in claims 1, 8 and 12.

Conclusion

9. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2611

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Temesghen Ghebretinsae whose telephone number is 571-272-3017. The examiner can normally be reached on Monday-Friday from 8 to 6. The examiner can also be reached on alternate .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel, can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

T.Ghebretinsae.

9/28/06.

Temesghen Ghebretinsae
Primary Examiner
Art Unit 2611

T. Ghebretinsae
9/28/06
TEMESGHEN GHEBRETINSAE
PRIMARY EXAMINER